

prosthesis employing the same engaging elements on the prosthesis from which the insertion tool was disengaged. Imaging can then proceed as described above.

Once the image is obtained as described above, a doctor can use the image to
5 determine whether the prosthesis is correctly aligned within the patient knowing that the
orientation of the prosthesis within the image is as desired. Thus, a single image can be
taken to verify the orientation of the implant, rather than possibly obtaining multiple
images simply to align the image obtaining device with the prosthesis before moving on
to verify the orientation of the prosthesis with respect to the patient. If the orientation of
10 the prosthesis within the patient is as desired, the surgical procedure can be completed. If
the orientation is not as desired, the orientation of the prosthesis is readjusted, typically
by re-engaging either the insertion tool or the alignment verification tool to the prosthesis
and manually adjusting its orientation, then employing the alignment verification device
again to align the image obtaining device with the prosthesis and obtaining an image.
15 This process can be repeated until the desired orientation of the prosthesis within the
patient is achieved.

One of ordinary skill in the art will appreciate further features and advantages of
the invention based on the above-described embodiments. Accordingly, the invention is
20 not to be limited by what has been particularly shown and described, except as indicated
by the appended claims.

What is claimed is:

1. An alignment verification device, comprising:

a spacer element having proximal and distal portions and an insert engaging element disposed on the distal portion; and

an alignment guide surface affixed to the spacer element and defining an

5 alignment orifice, the alignment orifice being spaced apart from the insert engaging element.

2. The device of claim 1, wherein the insert engaging element is a generally rectangular element sized to fit within a slot formed on the surface of a spinal disc insert
10 prosthesis.

3. The device of claim 2, wherein the insert engaging element further comprises a depth stop element.

15 4. The device of claim 1, wherein the spacer element includes two elongate members with the alignment guide fixed between the elongate members, each elongate member having an insert engaging element.

20 5. The device of claim 4, wherein each insert engaging element is a generally rectangular element sized to fit within a slot formed on the surface of a spinal disc insert prosthesis.

25 6. The device of claim 5, wherein at least one of the insert engaging elements includes a depth stop element.

7. A prosthesis alignment verification system, comprising:

an alignment verification device including

a spacer element having proximal and distal portions and a prosthesis engaging element disposed on the distal portion; and

an alignment guide surface affixed to the spacer element and defining an alignment orifice, the alignment orifice being spaced apart from the prosthesis engaging element; and

a prosthesis having an engaging element and a visual indicator element, the engaging element configured to releasably engage the prosthesis engaging element of the alignment verification device so that, upon engagement, the alignment orifice is spaced apart from the visual indicator element.

8. The system of claim 7, wherein the engagement of the alignment verification device with the prosthesis is adapted to permit a sighting element of an image obtaining device to be aligned with the alignment orifice and the visual indicator element so that an image obtaining device is aligned with the prosthesis in a known orientation.

9. The system of claim 8, wherein the prosthesis engaging element is generally rectangularly shaped and the engaging element of the prosthesis is a slot configured to engage the prosthesis engaging element.

10. The system of claim 9, wherein the prosthesis engaging element includes a depth stop element.

11. The system of claim 9, wherein the spacer element includes two elongate members, each having a prosthesis engaging element, and the prosthesis includes two engaging elements, each configured to engage one of the prosthesis engaging elements.

12. The system of claim 8, wherein the prosthesis is a spinal disc prosthesis.

13. The system of claim 12, wherein the spinal disc prosthesis incorporates an angle.

14. The system of claim 12, wherein the spinal disc prosthesis includes at least one bone facing surface having a slot as the engaging element, the prosthesis engaging element being sized to engage the slot.

15. The system of claim 14, wherein the spinal disc prosthesis includes two opposed bone facing surfaces each having a slot as the engaging element, the spacer element comprising two elongate members each having a prosthesis engaging element sized to engage a slot on the spinal disc prosthesis.

16. The system of claim 7, further comprising a prosthesis inserter tool, the inserter tool having a prosthesis engaging element conforming substantially in shape to the prosthesis engaging element of the alignment verification device so that each prosthesis engaging element can engage the same engaging element on the prosthesis.

17. The system of claim 8, further comprising an orientable image obtaining device including a sighting element for aiding in orienting the image obtaining device, the sighting device being aimable through the alignment orifice to the visual indicator element to provide a visual indication that the image obtaining device is oriented in a predetermined orientation with respect to the prosthesis.

18. The system of claim 17, wherein the sighting element is a laser pointer.

19. A method for verifying the orientation of an image obtaining device with respect to an implanted prosthesis, comprising the steps of:

providing an alignment verification device including

a spacer element having proximal and distal portions and a prosthesis engaging element disposed on the distal portion; and

an alignment guide surface affixed to the spacer element and defining an alignment orifice, the alignment orifice being spaced apart from the prosthesis engaging element;

engaging the alignment verification device to the implanted prosthesis, the prosthesis having an engaging element and a visual indicator element, the engaging element configured to releasably engage the prosthesis engaging element of the

alignment verification device so that, upon engagement, the alignment orifice is spaced apart from the visual indicator element;

orienting the image obtaining device so that a sighting element on the image obtaining device is aimed through the alignment orifice to the visual indicator element to provide a visual indication that a predetermined orientation between the image obtaining device and the prosthesis has been achieved.

20. The method of claim 19, further comprising the following steps before engagement of the alignment verification device to the implanted prosthesis:

10 providing an insertion tool having a prosthesis engaging element that conforms substantially in shape to the prosthesis engaging element of the alignment verification device so that the insertion tool engages the same engaging element on the prosthesis that the alignment verification device engages;

engaging the prosthesis to be inserted to the insertion tool;

15 implanting the prosthesis in a patient in a desired location; and

disengaging the insertion tool from the prosthesis.

21. The method of claim 20, wherein the alignment verification device is engaged to the prosthesis employing the same engaging element on the prosthesis from which the insertion tool was disengaged.